A NEW SPECIES OF CASTILLEJA (SCROPHULARIACEAE) RELATED TO C. ASPERA FROM SOUTHEASTERN DURANGO, MEXICO

Guy L. Nesom

Department of Botany, University of Texas, Austin, Texas 78713 U.S.A.

ABSTRACT

Castilleja gonzalezii, sp. nov., is described from southeastern Durango, México. It is most closely related to three other species from the Sierra Madre Occidental with evenly divided, acute-lobed calyces, C. aspera, C. chlorosceptron, and C. durangensis. The new species differs from all three of these particularly in its densely stipitate-glandular vestiture.

KEY WORDS: Castilleja, Scrophulariaceae, Durango, México

Among recently incoming material at TEX is a specimen of Castilleja from southeastern Durango, México, that apparently represents a remarkably distinct, undescribed species.

Castilleja gonzalezii Nesom, sp. nov. TYPE: MEXICO. Durango: Mpio. Mezquital, 33 km de la Guajolota por el camino a Platanitos; bosque abierto de pino-encino, 2220 m, 16 Mar 1985, M. González et al. 1693 (HOLOTYPE: TEX!; Isotype: CIIDIR).

Castillejae durangensi Nesom similis sed differt vestimento dense stipitati-glanduloso, calycibus longioribus, et bracteis floralibus angustioribus.

Plants apparently perennial. Stems erect, 35 cm tall, broken off at the base but apparently several-stemmed from the base, probably taprooted, simple or with a single branch; stems, leaves, floral bracts, and calyces densely stipitate-glandular with hairs mostly 0.1-0.5 mm long, the glandular trichome apex orangish, eglandular hairs absent or rarely a few present along the leaf margins. Leaves erect-ascending, sometimes slightly recurved, linear-lanceolate, entire,

strongly 3-veined, the lowermost subclasping, non-clasping above, mostly 25-40 mm long, slightly shorter upwards, 2-4 mm wide (at midpoint), often folded at the middle. Mature inflorescence and infructescence ca. 8-10 cm long; floral bracts entire, 3-veined, 2.0-2.5 cm long, lanceolate, abruptly tapered from the base, 1.5-2.5 mm wide at midpoint, reddish or with a red apex, the apex slightly dilated. Calyces pink to red, 22-30 mm long, tubular (in fruit basally inflated and chartaceous, immediately constricted above the fruit), the primary lobes 10-14 mm long, nearly equal in length or the abaxial sinus slightly deeper, the secondary lobes 1-2 mm long, narrowly triangular. Corollas 24-37 mm long, the lower lip of 3, thick, green teeth ca. 1 mm long, the galea 12-17 mm long, sparsely glandular-pilose dorsally, 43-46% as long as the corolla, exserted 0-6 mm from the calyx; stigma bilobed, not or barely exserted.

Castilleja gonzalezii, known only from the type collection, is named for its collector, Martha González-Elizondo. She and her sister, Socorro González-Elizondo, have produced a detailed study of the vegetation of La Reserva de la Biosfera "La Michilia" in generally the same area of southeastern Durango where the new species was collected.

The new species is a member of Castilleja sect. Euchroma Benth. (sensu Eastwood 1909), which is characterized by an equally divided calyx and by the corolla tube and galea about equal in length. Within sect. Euchroma, C. gonzalezii is part of a small subgroup of four species with distinctly triangular, sharply acute, calyx lobes. All four of these species are restricted to the Sierra Madre Occidental of México: C. aspera Eastwood and C. durangensis Nesom (Nesom 1992a), and C. chlorosceptron Nesom (Nesom 1992b). Castilleja gonzalezii is most similar to C. durangensis and C. chlorosceptron in its linear, densely arranged leaves, but it differs from all three of its close relatives in its densely stipitate-glandular vestiture, the others being essentially eglandular. Castilleja chlorosceptron is diffusely rhizomatous and produces glabrous leaves and very small flowers (calyces 12-13 mm long, corollas 15-16 mm long); C. durangensis is taprooted and produces densely hispidulous leaves, small flowers (calyces 18-22 mm long, corollas 21-25 mm long), and floral bracts distinctly broadened at the apex.

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LITERATURE CITED

Eastwood, A. 1909. Synopsis of the Mexican and Central American species of Castilleja. Proc. Amer. Acad. Arts 44:563-591.

- González-Elizondo, S. & M. González-Elizondo. 1993. Vegetación de la Reserva de la Biosfera "La Michilia," Durango, México. Acta Bot. Mex. 22:1-104.
- Nesom, G.L. 1992a. New species and taxonomic evaluations of Mexican Castilleja (Scrophulariaceae). Phytologia 72:231-252.
- _____. 1992b. A new species of *Castilleja* (Scrophulariaceae) from Durango, México. Phytologia 73:137-139.